



IDS/1645

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Applicant: Robert M. Townsend et al.
Serial No.: 09/877,987
Filed: June 8, 2001
Docket: D0009NP/30436.53USU1
Title: METHODS FOR REGULATING A CELL-MEDIATED IMMUNE RESPONSE BY
BLOCKING LYMPHOCYTIC SIGNALS AND BY BLOCKING LFA-1 MEDIATED
ADHESION

CERTIFICATE UNDER 37 CFR 1.8

I hereby certify that this paper or fee is being deposited with the United States Postal as first class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on October 26, 2001.

By: [Signature]
Name: Richelle Ann Domingo

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

We are transmitting herewith the attached:

- ☒ Transmittal sheet, in duplicate, containing Certificate under 37 CFR 1.8.
- ☒ Information Disclosure Statement (37 C.F.R. §1.97 (b))
- ☒ Form 1449 (Information Disclosure Statement) (4 sheets)
- ☒ Exhibits 1 - 52
- ☒ Return postcard

Please charge any additional fees or credit overpayment to Deposit Account No. 50-0306. A duplicate of this sheet is enclosed.

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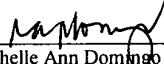
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Serial No.: 09/877,987 **Group Art Unit:** 1645
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By: Richelle Ann Domingo

INFORMATION DISCLOSURE STATEMENT (37 C.F.R. §1.97(b))

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner. They are as follows:

- WO 95/33770, December 14, 1995. (Exhibit 1)
- Armitage, Richard J. et al., "Molecular and Biological Characterization of a Murine Ligand for CD40," *Letters to Nature*, May 7, 1992, 357:80-2. (Exhibit 2)
- Aruffo, Alejandro and Brian Seed, "Molecular Cloning of a CD28 cDNA by a High-Efficiency COS Cell Expression System," *Proc. Nat'l Acad. Sci., USA*, December 1987, 84:8573-7. (Exhibit 3)

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- Konieczny, Bogumila T. et al., "IFN- γ is Critical for Long-Term Allograft Survival Induced by Blocking the CD28 and CD40 Ligand T Cell Costimulation Pathways," *The Journal of Immunology*, 1998, 160:2059-64. (Exhibit 35)
- Larsen, Christian P. et al., "CD40-gp39 Interactions Play a Critical Role During Allograft Rejection," *Transplantation*, January 15, 1996, 61(1):4-9. (Exhibit 36)
- Larsen, Christian P. et al., "Long-Term Acceptance of Skin and Cardiac Allografts After Blocking CD40 and CD28 Pathways," *Nature*, May 30, 1996, 381:434-8. (Exhibit 37)
- Lenschow, Deborah J. et al., "CD28/B7 System of T Cell Costimulation," *Annu. Rev. Immunol.*, 1996, 14:233-58. (Exhibit 38)
- Lenschow, Deborah J. et al., "Long-Term Survival of Xenogeneic Pancreatic Islet Grafts Induced by CTLA4Ig," *Science*, August 7, 1992, 257:789-92. (Exhibit 39)
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- Miwa, Shiro et al., "Effect of Anti-Intercellular Adhesion Molecule-1 and Anti-Leukocyte Function Associated Antigen-1 Monoclonal Antibodies on Rat-to-Mouse Cardiac Xenograft Rejection," *Surgery*, June 1997, 121(6):681-9. (Exhibit 42)
- Ni, Hsiao-Tzu et al., "Signaling Pathways Activated by Leukocyte Function-Associated Ag-1-Dependent Costimulation," *The Journal of Immunology*, 1999, 162:5183-9. (Exhibit 43)
- Niimi, Masanori et al., "The Role of the CD40 Pathway in Alloantigen-Induced Hyporesponsiveness In Vivo," *The Journal of Immunology*, 1998, 161:5331-7. (Exhibit 44)
- Russell, Mary E. et al., "Chronic Cardiac Rejection in the LEW to F344 Rat Model Blockade of CD28-B7 Costimulation by CTLA4Ig Modulates T Cell And Macrophage Activation and Attenuates Arteriosclerosis," *J. Clin. Invest.*, February 1996, 97(3):833-8. (Exhibit 45)
- Shimizu, Yoji et al., "Roles of Adhesion Molecules in T-Cell Recognition: Fundamental Similarities Between Four Integrins on Resting Human T Cells (LFA-1, VLA-4, VLA-5, VLA-6) in Expression, Binding and Costimulation," *Immunological Reviews*, 1990, 114:109-43. (Exhibit 46)
- Sun, Hong et al., "Prevention of Chronic Rejection in Mouse Aortic Allografts by Combined Treatment with CTLA4-Ig and Anti-CD40 Ligand Monoclonal Antibody," *Transplantation*, December 12, 1997, 64(12):1838-56. (Exhibit 47)
- Tan, Rusung et al., "B7 Costimulates Proliferation of CD4⁻8⁺ T Lymphocytes But Is Not Required for the Deletion of Immature CD CD4⁻8⁺ Thymocytes," *The Journal of Immunology*, November 15, 1992, 149(10):3217-24. (Exhibit 48)

- Tang, Aimin et al., "Blockade of CD40-CD40 Ligand Pathway Induces Tolerance in Murine Contact Hypersensitivity," *Eur. J. Immunol.*, 1997, 27:3143-50. (Exhibit 49)
- Trambley, Joel et al., "Asialo GM1⁺ CD8⁺ T Cells Play a Critical Role in Costimulation Blockade-Resistant Allograft Rejection," *The Journal of Clinical Investigation*, December 1999, 104:1715-22. (Exhibit 50)
- Van Gool, Stefaan W. et al., "CD80, CD86 and CD40 Provide Accessory Signals in a Multiple-Step T-Cell Activation Model," *Immunological Reviews*, 1996, 153:47-83. (Exhibit 51)
- Yoshinaga, Steven K. et al., "T-Cell Co-Stimulation Through B7RP-1 and ICOS," *Nature*, December 16, 1999, 402:327-32. (Exhibit 52)

This statement should be considered because it is submitted before the mailing date of the first Office Action on the merits. In accordance with 37 C.F.R. §1.98(a), copies of each document or other information listed on the enclosed Form 1449 are provided.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish that the reference(s) are not "prior art." Moreover, Applicants do not represent that the references have been thoroughly reviewed or that any relevance of any portion of a reference is intended.

Robert M. Townsend et al.
Serial No. 09/877,987
Filed: June 8, 2001
Page 9

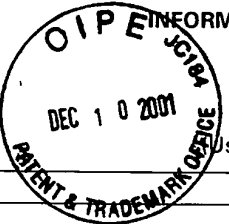
Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

No fee is deemed necessary in connection with the filing of this Information Disclosure Statement. However, if any additional fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 50-0306.

Respectfully submitted,

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	Applicant Robert M. Townsend et al.			
	Filing Date June 8, 2001	Group Art Unit 1645		

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	WO95/33770 (Exhibit 1)	December 14, 1995					

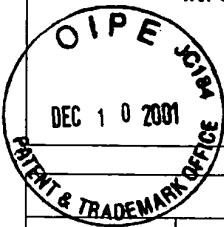
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*Substitute Disclosure Statement Form (PTO-1449)

Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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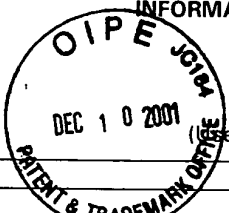
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		Linsley, Peter S. et al., "Immunosuppression in Vivo by a Soluble Form of the CTLA-4 T Cell Activation Molecule," <i>Science</i> , August 7, 1992, 257:792-5. (Exhibit 41)
		Miwa, Shiro et al., "Effect of Anti-Intercellular Adhesion Molecule-1 and Anti-Leukocyte Function Associated Antigen-1 Monoclonal Antibodies on Rat-to-Mouse Cardiac Xenograft Rejection," <i>Surgery</i> , June 1997, 121(6):681-9. (Exhibit 42)
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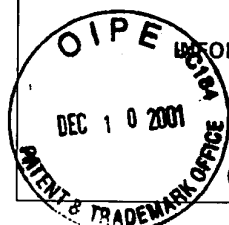
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